Curriculum vitae

Clément Moreau

Born in Paris on June 15th, 1994

PhD in Applied mathematics

Contact

Work address :	Laboratoire des Sciences du Numérique de Nantes Bureau 402 – Bât. S – Ecole Centrale de Nantes 1 rue de la Noë, 44300 Nantes France
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Current position

CNRS Researcher (fr: ***Chargé de Recherche CNRS***)

Affiliated with the Laboratoire des Sciences du Numérique de Nantes (LS2N)

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Academic career

2024– Researcher (`fr`: *chargé de recherche*) at Centre National de la Recherche Scientifique (CNRS), affiliated with the Laboratoire des Sciences du Numérique de Nantes (LS2N).

2022–2024 **JSPS (Japan Society for the Promotion of Science) Postdoctoral Fellow**, RIMS, Kyoto University. Supervision: Kenta Ishimoto. Project title : "Mathematical control theory for microrobot and cell locomotion".

2021–2022 **Invited researcher**, RIMS, Kyoto University.

2020–2021 **JSPS (Japan Society for the Promotion of Science) Postdoctoral Fellow**, RIMS, Kyoto University. Supervision: Kenta Ishimoto. Project title : "Applications of mathematical control theory to low-Reynolds number swimming".

Curriculum

2017–2020 **PhD in Applied mathematics** at Université Côte d'Azur

SUPERVISION:

Laetitia Giraldi, Inria Sophia-Antipolis
Pierre Lissy, Université Paris-Dauphine
Jean-Baptiste Pomet, Inria Sophia-Antipolis

TITLE:

Controllability in finite and infinite dimension and applications to life-inspired nonlinear systems

DEFENSE:

June 17$^{\text{th}}$, 2020 (online).

REVIEWERS:

Eamonn Gaffney, Oxford University
Emmanuel Trélat, Sorbonne Université

EXAMINERS:

Karine Beauchard, ENS Rennes
Jean-Baptiste Caillau, Université Côte d'Azur
Antonio DeSimone, SISSA

2013–2017 **Student at the École Normale Supérieure de Cachan**. "Diplôme de l'ENS Cachan" (awarded for outstanding completion of ENS 4-year course) obtained in September 2017.

2016–2017 **"Pre-doctoral Research year abroad" program (*Année de Recherche Prédoctorale à l'Etranger*)**, University of York (United Kingdom)
Project : "Numerical methods and simulations for elastohydrodynamics of microfilaments." Supervision: Hermes Gadêlha.

2015–2016 **Master's degree in Applied Mathematics, specialisation in "Mathematics for modelling"**, Université Pierre et Marie Curie (Paris 6), mention: bien (*magna cum laude*).
Thesis: "Partial controllability of magnetic micro-swimmers." Supervision: Laetitia Giraldi, Pierre Lissy and Jean-Baptiste Pomet.

2014-2015 **Master 1 (first year of graduate course) in "Pure Mathematics"**, ENS Cachan and Université Paris Diderot (Paris 7), mention: bien (*magna cum laude*).
Thesis: "Real-time suboptimal control of hybrid vehicles." Supervision: François Chaplais (CAS, Mines ParisTech).

2013–2014 **Bachelor's degree in Mathematics**, ENS Cachan and Université Paris Diderot (Paris 7), mention: bien (*magna cum laude*).
Thesis: "Numerical reconstruction of the Prokudin-Gorskii photographs." Supervision: Enric Meinhardt-Llopis and Jean-Michel Morel (CMLA, ENS Cachan).

2011–2013 **"Classe préparatoire" MPSI/MP**, (intensive two-year undergraduate course to prepare for the competitive entrance examination to French "Grandes Écoles"), Lycée Clemenceau, Nantes.

Research interests

- **Mathematical control theory**: control-affine systems with and without drift, conditions of local controllability, geometric control, state-constrained control, controllability and stabilization of PDEs.
- **Optimal control and optimisation**: optimal control, shape optimisation, applications to micro-robot and soft robot locomotion control.
- **Fluid mechanics**: Stokes equations, low-Reynolds number hydrodynamics, fluid-structure interactions, computational aspects, boundary integral method.
- **Control and modelling for bio-inspired locomotion**: hydrodynamics, modelling, elasticity, active and nonreciprocal materials, fluid-structure interaction, Cosserat rods, bio-inspired design and control.

Publications

*NB: symbols * et † indicate, respectively, alphabetical author order and contribution-based author order.*

Publications in peer-reviewed journals

2026

[21] F. Alouges, A. Lefebvre-Lepot, J. Levillain, C. Moreau, "The N-link model for slender rods in a viscous fluid: well-posedness and convergence to classical elastohydrodynamics equations", accepted in *Nonlinearity*. arXiv:2502.09988.

2025

[20]† C. Moreau, K. Ishimoto, Y. Privat, "Shapes optimising grand resistance tensor entries for a rigid body in a Stokes flow". *Journal of Applied and Numerical Optimization* 7, no. 3, Dec 2025. doi:10.23952/jano.7.2025.3.06

[19] K. Ishimoto, J. Herault, C. Moreau, "Bending–compression coupling in extensible slender microswimmers". *Journal of Fluid Mechanics* 1020, no A1, Sep 2025; doi:10.1017/jfm.2025.10623

[18]† K. Ishimoto, C. Moreau, J. Herault, "Robust undulatory locomotion through neuromechanical adjustments in a dissipative medium", *Journal of the Royal Society Interface* 22, no. 222, Jan 2025. doi:10.1098/rsif.2024.0688

2024

[17]† C. Moreau, B. J. Walker, R. N. Poon, D. Soto, D. I. Goldman, E. A. Gaffney, K. Y. Wan, "Minimal design of a synthetic cilium", *Physical Review Research* 6, no. 4, Dec 2024. doi:10.1103/PhysRevResearch.6.L042061

[16]† M. P. Dalwadi, C. Moreau, E. A. Gaffney, B. Walker, K. Ishimoto, "Generalised Jeffery's equations for rapidly spinning particles. Part II: Helicoidal objects with chirality", *Journal of Fluid Mechanics* 979, no. A2, Jan 2024. doi:10.1017/jfm.2023.924

[15]† M. P. Dalwadi, C. Moreau, E. A. Gaffney, K. Ishimoto, B. Walker, "Generalised Jeffery's equations for rapidly spinning particles. Part I: Spheroids", *Journal of Fluid Mechanics* 979, no. A1, Jan 2024. doi:10.1017/jfm.2023.923

[14]* L. Giraldi, P. Lissy, C. Moreau, J.-B. Pomet, "Necessary conditions for local controllability of systems with two scalar controls", *ESAIM:COCV* 30, no. 4, Jan 2024. doi:10.1051/cocv/2023073

2023

[13]* K. Ishimoto, C. Moreau, K. Yasuda, "Odd elastohydrodynamics: non-reciprocal living material in a viscous fluid", *Physical Review X Life* 1, no.2, Oct 2023.
DOI:10.1103/PRXLife.1.023002

Featured in PRX Life Invited Session (K06) at APS March Meeting 2024
Attention score on Altmetric (Feb. 2024): 339 (top 1%)

[12] C. Moreau, "Controllability and optimal control of microswimmers: theory and applications", *Journal of the Physical Society of Japan* 92, no 121005, Oct 2023. (contribution to the Special Topics issue "Advances in the physics of biofluids locomotion"). DOI:10.7566/JPSJ.92.121005

2022

[11]† B. J. Walker, K. Ishimoto, C. Moreau, E. A. Gaffney, Emergent rheotaxis of shape-changing swimmers in Poiseuille flow, *Journal of Fluid Mechanics* 944, no. R2. DOI:10.1017/jfm.2022.474

Featured in the *Focus on Fluids* of *Journal of Fluid Mechanics*: Bearon, R. When do shape changers swim upstream? *Journal of Fluid Mechanics* 950, F1. DOI:10.1017/jfm.2022.650

[10]* K. Ishimoto, C. Moreau, K. Yasuda, "Self-organised swimming with odd elasticity", *Physical Review E* vol. 105, no. 060403, Jun 2022. DOI:10.1103/PhysRevE.105.064603

Featured for republication in *Nagare: Journal of Japanese Society of Fluid Mechanics*.

[9]† B. J. Walker, K. Ishimoto, E. A. Gaffney, C. Moreau, "The control of particles in the Stokes limit", *Journal of Fluid Mechanics* vol. 942, no. A1, May 2022. DOI:10.1017/jfm.2022.253

[8]† E. A. Gaffney, M. P. Dalwadi, C. Moreau, K. Ishimoto, B. J. Walker, "Canonical orbits for planar microswimmers in shear flow", *Physical Review Fluids* vol. 7, no. L022101, Feb 2022. DOI:10.1103/PhysRevFluids.7.L022101

[7]† B. J. Walker, K. Ishimoto, E. A. Gaffney, C. Moreau, M. P. Dalwadi, "Effects of rapid yawing on simple swimmer models and planar Jeffery's orbits",*Physical Review Fluids* vol. 7, no. 023101, Jan 2022. DOI:10.1103/PhysRevFluids.7.023101

2021

[6]† C. Moreau, K. Ishimoto, "Driving a microswimmer with wall-induced flow", *Micromachines* vol. 12, no. 9:1025, Aug 2021. DOI:10.3390/mi12091025

[5]† C. Moreau, K. Ishimoto, E. A. Gaffney, B. J. Walker, "Control and controllability of microswimmers by a shearing flow", *Royal Society Open Science* 8: 211141, Aug 2021.
DOI:10.1098/rsos.211141

[4]* P. Lissy, C. Moreau, "State-constrained controllability of linear reaction-diffusion systems", *ESAIM:COCV*, vol. 27, no. 70, Jul 2021. DOI:10.1051/cocv/2021057

2018–2020

[3] C. Moreau, "Local controllability of a magnetized Purcell's swimmer", *IEEE Control Systems Letters*, vol.3, no.3, pp. 637-642, May 2019. DOI:10.1109/LCSYS.2019.2915004

[2]† C. Moreau, L. Giraldi, H. Gadêlha, "The asymptotic coarse-graining formulation of slender-rods, bio-filaments and flagella", *Journal of the Royal Society Interface*, vol. 15, no. 144, Jul 2018. DOI:10.1098/rsif.2018.0235

[1]* L. Giraldi, P. Lissy, C. Moreau, J.-B. Pomet, "Addendum to "Local Controllability of the Two-Link Magneto-Elastic Micro-Swimmer" ", *IEEE Transactions on Automatic Control*, vol. 63, pp. 2303-2305, Jul 2018. DOI:10.1109/TAC.2017.2764422

Conference proceedings

[C2] C. Moreau, "Local Controllability of Magnetized Purcell's Swimmers", 21st IFAC World Congress (online), IFAC-PapersOnLine, vol. 53, no. 2, 2020.

[C1] (Joint publication CDC and L-CSS [3]) C. Moreau, "Local controllability of a magnetized Purcell's swimmer", 58th Conference on Decision and Control (CDC), 2019.

Communications

Oral presentations at national and international conferences

2025

Oct 2025	11th Conference on Inverse Problems, Control and Shape Optimization (PICOF) 2025, Hammamet, Tunisia
Sept 2025	Oxford-Japan Symposium on Cell Behaviours in Simple to Complex Environments, Oxford, United Kingdom
Jun 2025	British Mathematics Colloquium-British Applied Mathematics Colloquium (BMC-BAMC), Exeter, United Kingdom
Jun 2025	Congrès de la Société de Mathématiques Appliquées et Industrielles (SMAI), France
Mar 2025	American Physical Society (APS) Global Summit, Anaheim, États-Unis

2024

Sept 2024	Workshop "Bio-and bio-inspired locomotion of slender bodies across scales", Nantes, France
Sept 2024	Workshop "Control, modelling and numerical simulation for physics", Nice, France
Aug 2024	International Congress of Theoretical and Applied Mechanics (ICTAM), Daegu, South Korea
Jun 2024	Journées Math Bio Santé, Nantes, France
May 2024	CANUM 2024, Île de Ré, France (2 presentations in minisymposia)
Apr 2024	British Applied Mathematics Conference (BAMC), Newcastle-upon-Tyne, UK
Jan 2024	Biological Filaments Workshop, Exeter, UK

2023

Aug 2023	International Congress on Industrial and Applied Mathematics (ICIAM) 2023, Tokyo, Japon
Jun 2023	Colloquium Euromech, Nice, France
Jan 2023	Workshop "New Perspectives on Active Matter", Warwick, UK

2022

Sept 2022 JSIAM Annual Meeting, Sapporo, Japon

Jul 2022 World Congress of Biomechanics, Taipei, Taiwan (online participation)

Jun 2022 CANUM 2020+2, Evian-les-Bains, France

Jun 2022 ECCOMAS Congress 2022, Oslo, Norway

Mar 2022 Odd viscoelasticity workshop, Dutch Institute for Emergent Phenomena, Amsterdam, Netherlands

Jan 2022 Active Matter Workshop 2022, Meiji University, Japan

2021

Jun 2021 Biofluids Symposium, Kyoto University (online)

Jan 2021 Active Matter Workshop 2021, Meiji University (online)

2020

Dec 2020 Congrès d'Analyse Numérique (online)

Jul 2020 21st International Federation on Automatic Control (IFAC) World Congress (online)

2019

Dec 2019 58th Conference on Decision and Control (CDC), Nice, France

Jul 2019 Equadiff Conference, Leiden, Netherlands

May 2019 Colloque Inter'Actions, Bordeaux, France

May 2019 Société de Mathématiques Appliquées et Industrielles (SMAI) Congress, Guidel, France

2018

Dec 2018 13th International Young Researchers Workshop on Geometry, Mechanics and Control, Coimbra, Portugal

Jan 2018 12th International Young Researchers Workshop on Geometry, Mechanics and Control, Padoue, Italie

2017

Nov 2017 Programme Gaspard Monge for Optimization (PGMO) Days, EDF Lab, Saclay, France

Presentations at lab seminars and workshops

2025

Dec 2025 PDE and Scientific Computing Seminar of the Laboratoire de Mathématiques Raphaël Salem (LMRS), Rouen, France

Nov 2025 Continuum Robotics Lab Seminar, Toronto, Canada

Nov 2025 Automatic Control Seminar of the Laboratoire Signaux et Systèmes (L2S), Saclay, France

Feb 2025 ANR project "COSSEROOTS" closing workshop, Lille, France

2024

Sept 2024	"Séminaire au vert" of the ReV (bio-inspired robotics) group, Le Croisic, France
Sept 2024	Soft and Living Matter seminar, Amsterdam, Netherlands
May 2024	Research Institute for Mathematical Sciences (RIMS) Seminar, Kyoto, Japon
Feb 2024	Snake locomotion workshop, Museum National d'Histoire Naturelle, Paris, France
Jan 2024	ReV team seminar, LS2N, Nantes, France

2023

Nov 2023	Shape Seminar, Tohoku University, Sendai, Japan
Nov 2023	Takeuchi Lab Seminar, The University of Tokyo, Tokyo, Japan
Nov 2023	Seminar of the department of physics of Kyushu University, Fukuoka, Japan
Oct 2023	ASHBi Seirin's Laboratory Seminar, Kyoto, Japan
Jun 2023	ANR COSSEROOTS workshop, La Londe-les-Maures, France
May 2023	Kobayashi Group Seminar, Tokyo, Japan
Jan 2023	Physics Theory Group Seminar, Warwick, United Kingdom

2022

Nov 2022	Seminar of the Mathematics department, Turin, Italy
Nov 2022	Seminar of the CODEX team in LS2N, Nantes, France
Nov 2022	ASHBI Seirin's Laboratory Seminar, Kyoto, Japan
Aug 2022	Yamamoto Groups Seminar, Kyoto, Japan
Jun 2022	Groupe de travail contrôle de l'IECL, Nancy, France
Mar 2022	RIMS Fluid Dynamics Group seminar, Kyoto, Japan
Feb 2022	RIMS Fluid Dynamics Group seminar, Kyoto, Japan

2021

Dec 2021	Applied Maths Seminar, Kyoto University, Japan
Dec 2021	CRAN Seminar, Nancy, France (en ligne)
Nov 2021	RIMS Fluid Dynamics Group seminar, Kyoto, Japan
Sep 2021	IRMA PDE Seminar, Strasbourg, France.
Mar 2021	Yamamoto Group (Theoretical Modeling of Soft Matter and Living Systems) Seminar, Transport Phenomena Laboratory, Kyoto University (online)
Feb 2021	Seminar of the LMBA "Analyse, Phénomènes Stochastiques et Applications" team, Brest, France (online)
Feb 2021	Seminar of the I2M "Analyse Appliquée" team, Marseille, France (online)

2018 – 2020

May 2020	PhD seminar of the LJLL, Paris, France (online)
Apr 2018	PhD seminar of the PDE and Numerical Analysis team of the LJAD, Nice, France

Poster presentations

May 2024	IUTAM Workshop on Soft Materials and Soft Robotics, Tokyo, Japan
Jan 2024	Workshop on Biological Filaments, Exeter, United Kingdom
Juil. 2023	XXe Jacques-Louis-Lions Spanish-French School on Numerical Simulations in Physics & Engineering, Barcelone, Spain
Feb 2020	Research Workshop of the Israel Science Foundation on Micro-Swimmers and Soft Robotics, Haifa, Israel
Jun 2018	Congrès National d'Analyse Numérique (CANUM), Cap d'Agde, France

Short-term research visits

2025

Nov 2025	University of Toronto (Canada), with Andrea Gotelli (1 week)
Avr 2025	Kyoto University (Japan), with Kenta Ishimoto (3 weeks)

2024

Sept.2024	University of Amsterdam (Netherlands), with Corentin Coulais (1 week)
Mai 2024	Kyoto University (Japan), with Kenta Ishimoto (3 weeks)

2023

Jun 2023	Sorbonne Université (France), with Matthieu Bonnivard (1 week)
May 2023	The University of Tokyo (Japan), with Simon Schnyder (1 week)
Jan 2023	Warwick University (United Kingdom), with Matthew Turner (1 week)
Jan 2023	Oxford University (United Kingdom), with Eamonn A. Gaffney (1 week)
Jan 2023	Sorbonne Université (France), with Matthieu Bonnivard (1 week)

2022

Nov 2022	Politecnico di Torino (Italy), with Marta Zoppello (1 week)
Nov 2022	Université de Nantes (France), with Swann Marx (1 week)
Jun 2022	Université de Lorraine (France), with Jérôme Lohéac (1 week)
May 2022	Sorbonne Université (France), with Matthieu Bonnivard (1 week)
May 2022	Université de Strasbourg (France), with Yannick Privat (2 weeks)

2018 – 2021

Sep 2021	Université de Strasbourg (France), with Yannick Privat (2 weeks)
Jan 2020	Bristol University (United Kingdom), with Hermes Gadêlha (2 weeks)
Jun 2018	York University (United Kingdom), with Hermes Gadêlha (1 week)

Funding

2025–2027 Pulsar Program for Young researchers in Région Pays de la Loire (PI). Funding : 20k€

2024–2027 Japan Society for the Promotion of Science (JSPS) International Joint Research Program (participant). Funding : 30k€

2024–2032 Programme et Equipement Prioritaire de Recherche (PEPR) "Organic Robotics" (O2R) (participant)

2024–2028 ANR SLIMDISC (participant)

2022–2024 Grant-in-Aid for JSPS Research Fellows. Amount: 2,3M ¥ (approx. 16k€)

2020–2021 Research Support Allowance for Short-term JSPS Fellows. Amount : 840k ¥ (approx. 6k€)

Supervision

PhD theses

2025–2028 Co-supervision, with Frédéric Boyer of the PhD thesis of **Lucas Vaudron**. Topic: "Geometric controllability conditions for follow-the-leader motion of slender locomotors through contacts"

2025–2028 Co-supervision, with Yacine Chitour and Swann Marx, of the PhD thesis of **Eliot Thys**. Topic: "Controllability of the Cosserat equation and applications to continuum robotics"

2025–2028 Co-supervision, with Swann Marx, of the PhD thesis of **Yunus Lesport**. Topic: "Implicit discretization and sliding mode control for infinite-dimensional systems"

2025–2028 Co-supervision, with Frédéric Boyer and Johann Herault, of the PhD thesis of **Inas Belrhazi**. Topic: "Modeling and simulation of a microswimmer in a viscoelastic fluid"

Internships

2025 Supervision of the M2 internship of Sakhti Vineskwar Suresh Babu. Topic: "Design of an active stiffness law for bio-inspired robotic locomotion"

2025 Co-supervision, with Frédéric Boyer and Yacine Chitour, of the M2 internship of Lucas Vaudron. Topic: "Geometric controllability conditions for follow-the-leader motion of slender locomotors through contacts"

2025 Co-supervision, with Yacine Chitour and Swann Marx, of the M2 internship of Eliot Thys. Topic: "Controllability of the Cosserat equation and applications to continuum robotics"

2025–2028 Co-supervision, with Swann Marx, of the M2 internship of Yunus Lesport. Topic: "Implicit discretization and sliding mode control for infinite-dimensional systems"

2024 Co-supervision, with Johann Herault, of the M2 internship of Nora Todjihounde. Topic: "Modeling and simulation of a microswimmer in a viscoelastic fluid"

2024 Co-supervision, with Swann Marx, of the M2 internship of Lucien Gontier. Topic: "Controllability of the equation governing elastohydrodynamics of a flexible magnetic microrobot"

2023–2024 Co-supervision, with Yannick Privat, of the 2nd-year project of Mohammed Mhadi and Thomas Pourny, students at the Ecole des Mines de Nancy. Topic: "Optimal control of Jeffery's equation"

2023 Supervision of Eliot Thys, M1 student at ENS Rennes. Title of the thesis: "Controllability and stability of a two-link magnetic microrobot"

2021 Co-supervision, with Valentin De Bortoli and Arnaud Doucet, of Benjamin Archer, M2 student at the University of Oxford. Title of the thesis: "The application of genetic reinforcement learning techniques for the control of microscopic robots"

Teaching

Université Paris-Dauphine (2019-2020)

Subject	Level	Type	Students	Hours
Analysis	Undergrad in Math/Economics	Tutorials	30	64

Université Côte d'Azur (2017-2019)

Subject	Level	Type	Students	Hours
Analysis	Undergrad in Economics	Tutorials	25-30	64
Statistics	Undergrad in Economics	Tutorials	25-30	36
Statistics	Undergrad in Math/Comp. Science	Tutorials/Practice	25-30	28

Miscellaneous

2022–2025 **Lecture in the Master 2 program "Cell Physics"** at Strasbourg University, France : "Mathematical approaches to microscopic swimming". – 4h

2020 (Jan) **Mini-course** "An easy-to-use fluid-structure simulator for active/passive rods/filaments" dispensed to graduate and postgraduate students of the Engineering Mathematics department at Bristol Unviersity (UK). – 10h

2015–2016 **"Colles" in mathematics** (individual oral examinations, part of the French "Classe préparatoires" intensive training for competitive engineering school entrance examinations), Lycée Janson-de-Sailly, Paris – 60h

Academic service

Organisation of scientific events

2025–now **Organiser** of the bimonthly Bio-inspired Robotics seminar at Laboratoire des Sciences du Numérique de Nantes (LS2N).

Oct 2024 **Organiser**, with Johann Herault, of the symposium "Bio- and bio-inspired locomotion of slender bodies across scales" in Nantes (12 invited speakers).

June 2024 **Co-organiser**, with Swann Marx, of a minisymposium "Control theory and modeling for fluid mechanics" at CANUM 2024 (4 speakers).

Aug 2023 **Co-organiser**, with Shin-ichi Takehiro, of a workshop on fluid dynamics at RIMS (4 speakers over one day).

Aug 2023 **Co-organiser**, with Jessie Levillain, of the minisymposium "Low-Reynolds number swimming: modelling, analysis and applications" at the ICIAM 2023 congress (8 speakers).

Aug 2023 **Co-organiser**, with Jean-Baptiste Caillau and Lamberto Dell'Elce, of the minisymposium "Optimal control: methods and applications" at the ICIAM 2023 congress (8 speakers).

Mar 2023 **Organiser** of a workshop "Living matter modelling and dynamics" at RIMS (7 speakers over a half day).

Feb 2023 **Co-organiser**, with Antoine Diez and Hiroshi Ishii, of an inter-group research workshop at Kyoto University (6 speakers over one day).

PhD committees

2025 Examiner on the PhD defense committee of Théo Gherdaoui

2024 Examiner on the PhD defense committee of Chabane Meziane

Comité de Suivi Individuels (CSI)

In France, the Individual thesis monitoring committee (CSI) provides support to the PhD candidate throughout the duration of the PhD preparation. It typically meets once a year to assess the quality of the student's research and supervision.

2025 – 2028 Member of the CSI of Julien Stauder

2024 – 2027 Member of the CSI of Lucas Palazzolo

2024 – 2027 Member of the CSI of Youssef Khalifeh

Reviewing activities

- European Journal of Control
- IFAC Congress
- Journal of Fluid Mechanics
- Journal of Fluids and Structures
- Journal of Nonlinear Science
- Journal of Optimization Theory and Applications
- Micromachines
- Nature Communications

Other academic responsibilities

2025–	**Deputy head** of the ReV group (bio-inspired robotics) at LS2N
2024–	**Member of the Equality, Diversity and Inclusion Committee** at LS2N
2019–2020	**PhD student representative** on the laboratory council of CEREMADE
2019–2020	**Member of the Gender Equality Committee** at CEREMADE

Outreach

Facilitator for "Ma Terre en 180 minutes"

"Ma Terre en 180 minutes" is a half-day workshop format created by French researchers in environmental sciences to raise awareness within the academic community about the environmental transition and the carbon footprint of research institutes and laboratories. I am trained to facilitate this workshop.

Contributor for the Images des Mathématiques website

From 2018 to 2023, I have been a writer for the monthly press review of the "Images des mathématiques" website. This review offers an exhaustive summary of the articles that deal with topics related to mathematics, in French-speaking, general-public media. The press review is read by around 2,500 people each month.

Scientific activities in school sector

- Presentation in front of Japanese high-school students (in Feb 2021, Jan 2023, and Nov 2023), within the JSPS Science Dialogue program.

- Organisation of a workshop on randomness with French junior high school students in October 2019.

Scientific activities for the general public

- Organisation of a workshop “Maths and Games” at the French festival“Belle Epine” in August 2020.
- “Open Days” at Inria Sophia-Antipolis (2018): research presentation to the public.
- Participation to the French “My PhD in 180 seconds” contest in 2018.
- Short live presentation for “La méthode scientifique” program on national French radio.

Media coverage

- Interview in the article "Spermatozoïde : portrait d’un phénomène" in magazine Epsiloon in February 2024
- Mention of [13] in *New Scientist* magazine and numerous other media outlets (see Altmetric)
- Mention of [10] in articles on Phys.org and EurekAlert

Miscellaneous skills

Computer science

Computational and programming software	Matlab/Scilab Maple, Mathematica Notions of Python, Fortran, FreeFEM++
Miscellaneous	LaTeX, html, Adobe Illustrator

Languages

French: mothertongue

English: fluent (C2)

German: intermediate (B2)

Japanese: elementary (A2)